

# **MULTI-DIMENSIONAL IMAGE SYSTEM FOR DIGITAL IMAGE INPUT AND OUTPUT**

## **ABSTRACT OF THE DISCLOSURE**

A two-dimensional image is displayed and a grey level image is drawn on said two-dimensional image defining a depth map. A stereo image pair is generated based on the depth map and an anaglyph image of the stereo image pair is displayed. Edits of the depth map are displayed by anaglyph image. A plurality of projection frames are generated based on the depth map, and interlaced and printed for viewing through a micro optical media. Optionally, a layered image is extracted from the two-dimensional image and the plurality of projection frames have an alignment correction shift to center the apparent position of the image. A measured depth map is optionally input, and a stereo pair is optionally input, with a depth map calculated based on the pair. The user selectively modifies the calculated and measured depth map, and the extracted layers, using painted grey levels. A ray trace optionally modifies the interlacing for optimization to a particular media.